### **TOPIC 21: DIABETES AND ALCOHOL OVERUSE**

#### STATEMENT OF THE PROBLEM

Alcohol overuse in patients with diabetes can worsen blood sugar control. Long-term alcohol use in people who are well nourished can result in excessive blood sugar levels. In patients who are not adequately nourished, overuse of alcohol can lead to dangerously low blood sugar levels. Heavy drinking can also lead to accumulation of acids leading to ketoacidosis and can worsen disturbances in fat metabolism increasing the risk of heart disease as well. Alcohol overuse also increases the risk and severity of nerve damage and eye disease.

### **KEY MESSAGES**

Participants who consume alcohol should consult with their providers around its appropriate and acceptable use. Generally:

- 1. Recommended limits for women are no more than 7 drinks a week (1 per day) or no more than 3 drinks on any single day.
- Recommended limits for men are no more than 14 drinks a week (2 drinks per day) or no more than 4 drinks on any single day.
  - a. (These limits refer to standard drink sizes: 12 oz. beer, 5 oz. wine, 1 single shot of liquor)
- 3. Providers should be alerted on participants with an AUDIT-C score over 5.
- 4. Alcohol-induced increases in blood glucose may result from adverse effects on insulin secretion and insulin resistance. Also, chronically drinking diabetics may show worse compliance with their dietary and medication regimens that can also result in uncontrolled blood sugar levels. Alcohol is empty calories
- 5. Alcohol-induced hypoglycemia typically occurs in individuals who have been drinking alcohol but not eating. Alcohol consumption can also lead to hypoglycemic unawareness in which the individual is not aware of the warning signs of hypoglycemia (sweating, weakness, shakiness, nervousness, pounding or racing heart rate).
- 6. Alcohol overuse can result in elevated triglyceride levels that can result in severe inflammation of the pancreas (pancreatitis). In addition to being highly painful and potentially fatal, this problem may interfere with insulin production and worsen control of blood sugar levels.
- 7. Alcohol overuse increases the risk of cardiovascular disease and consumption of more than 3 drinks a day can elevate blood pressure.
- 8. Diabetes and alcohol consumption are the two most common causes of peripheral neuropathy especially in men.
- 9. Heavy alcohol consumption increases a person's risk for developing retinopathy. In a study of men (Young et al. 1984) the risk of retinopathy was independent of the ability to control blood sugar. This suggests that alcohol may directly damage the eyes or related structures.
- 10. Alcohol overuse also interacts with or alters the effects of medication. Alcohol can affect liver function which can cause potentially lethal side effects with patients taking Metformin.



# PATIENT OUTCOMES/GOALS

By the end of the educational session, the client with diabetes will be able to:

• Identify consequences of alcohol overuse on blood sugars and overall diabetes control

|   | CHW Actions  | Participant Actions   |  |  |
|---|--|---|--|--|
|   | For participants with an Audit-C score over 5: Assess the participant's perception of their alcohol use. "The assessment results show that you drink more alcohol than is generally recommended. The recommendations are (give appropriate levels). What do you think about your alcohol use?" Assess the participant's knowledge about the effects of alcohol on diabetes. "What do you know about the effects of alcohol on diabetes?" Invite the opportunity to share information on the subject. "May I share some information that I've learned about alcohol and diabetes?" If the participant expresses concern about his/her alcohol consumption, ask: "What worries/concerns you about your drinking?" If the participant expresses interest in reducing alcohol consumption, ask: "What could you do to start reducing your drinking?" Indicate that the Audit-C score prompts a | Discuss alcohol use with the provider and utilize resources as recommended. |  |  |
|   | notification to the provider and that the provider can further assess the situation and offer resources as needed.   |   |  |  |
| • | Referral resources:  |   |  |  |
| • | Harborview Medical Center  |   |  |  |
| • | •Refer participant to Primary Care Provider or to<br>Alcohol & Drug Rehab Counselor (Kathleen Austin-<br>pager 944-7937) For community resources, contact<br>Social Worker, Jacqueline Butin (744-8511).   |   |  |  |
| • | Sea Mar  |   |  |  |
| • | Send patient message to Care Coordinator for referral to SBIRT program (includes behavioral health services as well as alcohol/drug counseling).   |   |  |  |
| • | VA Puget Sound Health Care System  |   |  |  |

| • | Refer participant to primary care. |  |  |  |
|---|------------------------------------|--|--|--|
|   |                                    |  |  |  |
|   |                                    |  |  |  |

## TOOLS/TEACHING AIDS

None

### **HANDOUTS**

- 2. Action Plan.....English | Spanish Source: Public Health Seattle & King County

### **REFERENCES**

Emanuele et al; Consequences of Alcohol Use in Diabetics; Alcohol & Health Research World; Vol. 22. No. 3, 211-219. 1998.

| Version | Date      | description | Staff  | final |
|---------|-----------|-------------|--------|-------|
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